

**GREENFIELDS BENCH, PESTICIDES AND WATER QUALITY
JOINT VOLUNTARY ADVISORY AND STEERING COMMITTEE
NOVEMBER 29, 2007 10 am to noon
FAIRFIELD COMMUNITY HALL**

Questions or comments? Please contact: Rick Mulder, Montana Dept. of Agriculture, 444-5422, rmulder@mt.gov, or Mark Major, Teton Co. Extension, 466-2491, mbmajor@montana.edu.

Meeting Summary

In attendance: Alan Rollo, Sun River Watershed Group; John Larson, MTEPA; Michael Konen, Producer; Joshua M. Wulf, Busch Ag Resources, Inc.; Terry Nugent, Producer; Alan Peace, Producer; Amy Bamber, MDA; Mark Major, Teton Co. Extension; Sherwin Smith, Teton Co. FSA/ USDA; Tracy Vischer, MDA; Adam Goloman, Tri-County Water; Rick Mulder, MDA

Rick Mulder opened the meeting by welcoming everyone and thanking them for coming. The roles of the two committees were explained this way: the Voluntary Advisory Committee is to evaluate and provide input regarding the MT Department of Agriculture's (MDA) monitoring efforts, and the Steering Committee is to provide educational materials regarding the protection of groundwater from pesticides to community members. This was the first time that the two committees have had a joint meeting. Because the Specific Management Plan has been repealed, and we have about 10 years of monitoring data to draw from, it has been determined that rather than have separate meetings, MDA can update the group on our monitoring results and that information can then in turn help inform the Steering Committee's activities for the year. Introductions were then made around the table.

2007 Pesticide and Fertilizer (Nitrate) Monitoring Results

Rick presented MDA's 2007 monitoring results, which may be found at: <http://agr.mt.gov/pestfert/groundwater/monitoring07.asp>.

Rick noted the presence of some pesticides that are not generally used in production agriculture, such as soil sterilants and noxious weed control herbicides. The presence of these chemicals, even at low levels, illustrates the importance of providing outreach to all pesticide users in the area, not just agricultural producers.

Rick brought up nitrates in the groundwater, and emphasized the importance of trying to control the levels before they reach a point where regulatory controls are necessary. Through time nitrates have not demonstrated a trend, but are elevated, and sometimes exceed the standard of 10 parts per million. Is there anything that can be done to help control the levels?

- One of the discussions around the table concerned some of the nitrate spikes that could be seen in the data. It was proposed that winter wheat has gained in popularity for some producers, and that usually includes a January fertilizer application which is twice as heavy as required by barley.
- Another observation shared was that pivots appear to keep more nitrogen in the soil. Most producers in the area have soil tests done that include nitrogen levels and should be adjusting their fertilizer input accordingly.
- How about precision ag? This was a very interesting discussion. First, what is precision agriculture? Here is Wikipedia's entry, http://en.wikipedia.org/wiki/Precision_agriculture . NRCS has been working with a producer who has taken precision ag to a whole new level. But how can this method/ process be more accessible for most producers? There are some producers using aspects of precision ag—and what they are doing can be transferred to other producers. Generally switching to precision ag has been found to be very cost effective (because of the reduction in fertilizer inputs).
- Another question raised was, 'how much nitrogen is present in the irrigation water to begin with?' Being a surface water source nitrates would likely be low to non-existent. *Post meeting: MDA was unable to track down any actual nitrate data for the irrigation water. Ditch samples were collected in 1999-2000 but were only analyzed for pesticides. We may do some nitrate sampling of the ditch water in 2008 so we can determine what's in the water.*
- Finally, John brought up EPA's Strategic Ag Grants. These grants may be used to improve pesticide and fertilizer use practices, and generally go through Extension. It would be worth looking at the grants to see if money could be used to help producers switch to using some of the precision ag techniques.
- Mark and Alan will work together regarding a Nitrate project, maybe irrigation management with Jim Bauder?

We forgot to discuss 2008 sampling plan but MDA will continue monitoring in 2008. Monitoring sites will remain much the same as in 2007 with a couple of exceptions. Well G-13, on the second bench, will be rotated back in for 2008 while well FUS-10 will be rotated out. MDA may collect a sample from a new well drilled by the Town of Fairfield at the location of the now abandoned PWS-1.

Steering Committee—Educational Outreach and Training for the Community

Currently the Teton Co. Extension has several events lined up for 2008 which will address ground and surface water protection:

- February 13—Sprayer calibration with the Greenfield Irrigation District, targeted at the 20 acre and under crowd

- February 20—Geo-caching, a workshop to teach people how to use GIS
- March—During the end of March, Jim Bauder and NRCS will provide a training regarding irrigation management, with some emphasis on the effects of wildfires on irrigation

Some other ideas that were presented at the meeting:

- Precision Ag tour—there was a lot of support for this from the group
- Small Acreage Workshop—use this as a way to welcome new folks into the community of Fairfield, include watershed information and training on what individual homeowners can do to protect natural resources. These trainings should be conducted every 2-3 years.
- Sun River Weed Whacker Rodeo—use this as a training opportunity to reach a large number of people, who aren't all producers, regarding how to prevent pesticide application impacts to water.
- Individual Noxious Weed Trust Fund Grant Projects—when projects include cooperative work among area landowners, there is another opportunity to provide outreach.
- Newsletters—there are several opportunities to get groundwater protection articles into the local written media—NRCS and FSA newsletters, Alan produces newsletters for the Sun River and Teton River Watersheds, and Mark submits articles to three area newspapers. Making sure that groundwater protection is periodically reviewed in these sources is a great way to ensure that the community has an opportunity to continue to increase their awareness and knowledge of the importance of protecting our water sources.
- Nitrogen community meeting—this meeting could cover several nitrogen topics (such as how proteins are boosted in pivot systems), and include a groundwater component.

Research idea:

- What are the effects of moving from burning to no-till on nitrogen?

The meeting ended at noon. It appeared that most participants enjoyed combining the two committees and felt that it was a worthwhile meeting.

Minutes by Amy Bamber, MDA